

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

Madaline CHIRICA, et al.

Application No.: not yet known

Filed: Herewith

For: MAMMALIAN RECEPTOR  
PROTEINS; RELATED  
REAGENTS AND METHODS

Examiner: not yet known

Art Unit: not yet known

Conf. No.: not yet known

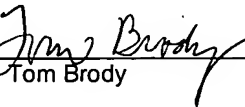
"Express Mailing" mailing label number EL 982 851 001 US

Date of Deposit: November 21 2003

I hereby certify that this correspondence is being deposited with the United States Postal Service "Express Mail Post to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Mail Stop Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

by: \_\_\_\_\_

  
Tom Brody

**INFORMATION DISCLOSURE STATEMENT**

Sir:

The materials as listed in the attached Form PTO/SB/08 are brought to the Examiner's attention pursuant to the duty of disclosure under 37 C.F.R. § 1.56, § 1.97, and § 1.98. Attached please find Form PTO/SB/08 listing references AA-BB.

Copies of references AB, AE, AH, AI, AK, AO, AR, AY, and AZ, are enclosed. All other references listed on the attached form PTO/SB/08 have been previously cited either by Applicants or the Examiner in the parent application, U.S. Patent Application No. 09/853,180, filing date May 10, 2001, and copies should be available there. As such, these references will not be provided absent a specific request. Ser No. 09/853,180 also contains an International Search Report, dated April 9, 2002.

Citation of these documents should not be construed as a representation that the documents are in fact material or are in fact prior art with respect to the instant invention. The Examiner should not make any inference relating to the relative pertinence of cited references based upon the order in which the art is presented. Citation of these documents should not be construed as a representation that a search has been made or that more pertinent art may not be in existence.

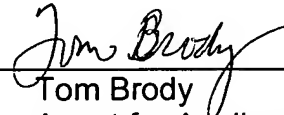
Applicants request that the Examiner fully consider the art cited in the attached Form PTO/SB/08. Applicants further request that the Patent and Trademark Office list all such art on the front of any patent issuing from this application.

Applicants believe that no fees are due with this communication. Should this not be the case, the Commissioner is hereby authorized to debit any charges or refund any overpayments to DNAX Deposit Account No. 04-1239.

Respectfully submitted,

Date: November 21, 2003

By:

  
Tom Brody  
Agent for Applicants  
Reg. No. 46,433

***Customer No. 28008***

DNAX Research, Inc.  
901 California Avenue  
Palo Alto, CA 94304-1104  
Telephone (Switchboard): (650) 496-6400  
Telephone No. (Direct): (650) 496-1244  
Facsimile No.: (650) 496-1200

Enclosed:

1. Aggarwal, *et al.* (2003) *J. Biol. Chem.* 278:1910-1914 (5 pages).
2. Becker, *et al.* (2003) *J. Clin. Invest.* 112:693-706 (14 pages).
3. Cooper, *et al.* (2002) *J. Immunol.* 168:1322-1327 (6 pages).
4. Cua, *et al.* (2003) *Nature* 421:744-748 (5 pages).
5. Happel, *et al.* (2003) *J. Immunol.* 170:4432-4436 (5 pages).
6. Holscher, *et al.* (2001) *J. Immunol.* 167:6957-6966 (10 pages).
7. Krajina, *et al.* (2003) *Eur. J. Immunol.* 33:1073-1083 (11 pages).
8. Uhlig and Powrie (2003) *J. Clin. Invest.* 112:648-651 (4 pages).
9. Wiekowski, *et al.* (2001) *J. Immunol.* 166:7563-7570 (8 pages).

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				Application Number	Not yet known
				Filing Date	Herewith
				First Named Inventor	Madaline CHIRICA
				Art Unit	Not yet known
				Examiner Name	Not yet known
Sheet	1	of	3	Attorney Docket Number	DX01074B1K

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	DOCUMENT NUMBER	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant, Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant, Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
	AA	WO 01/18051	03-15-2001	OPPMANN, et al.	pages 43-50	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.<sup>1</sup> Applicant's unique citation designation number (optional).<sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04.<sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).<sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.<sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible.<sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				Application Number	Not yet known
				Filing Date	Herewith
				First Named Inventor	Madaline CHIRICA
				Art Unit	Not yet known
				Examiner Name	Not yet known
Sheet	2	of	3	Attorney Docket Number	DX01074B1K

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	AB	S. AGGARWAL, <i>et al.</i> , <i>J. Biol. Chem.</i> 278(3):1910-1914, January 17, 2003. "Interleukin-23 promotes a distinct CD4 T cell activation state characterized by production of interleukin-17"	
	AC	KIM E. BARRETT, <i>Baillieres Clin. Gastroenterol.</i> , 10(1):1-15, March 1996. "Cytokines: sources, receptors and signalling"	
	AD	J. FERNANDO BAZAN, <i>et al.</i> , <i>Nature</i> , 379:591, February 15, 1996. "A newly defined interleukin-1?"	
	AE	CHRISTOPH BECKER, <i>et al.</i> , <i>J. Clin. Invest.</i> 112:693-706, September 2003. "Constitutive p40 promoter activation and IL-23 production in the terminal ileum mediated by dendritic cells."	
	AF	J. BRISCOE, <i>et al.</i> , <i>Philos. Trans. R. Soc. Lond. B Biol. Sci.</i> 351(1336):167-71, February 29, 1996. "JAKs, STATs and signal transduction in response to the interferons and other cytokines"	
	AG	IRWIN M. CHAIKEN and WILLIAM V. WILLIAMS, <i>Trends Biotechnol.</i> , 14(10):369-75, October 1996. "Identifying structure-function relationships in four-helix bundle cytokines: towards de novo mimetics design"	
	AH	ANDREA M. COOPER, <i>et al.</i> , <i>J. Immunol.</i> , 168:1322-1327, 2002. "Mice lacking bioactive IL-12 can generated protective, antigen-specific cellular responses to mycobacterial infection only if the IL-12 p40 subunit is present"	
	AI	DANIEL J. CUA, <i>et al.</i> , <i>Nature</i> , 421:744-748, February 13, 2003. "Interleukin-23 rather than interleukin-12 is the critical cytokine for autoimmune inflammation of the brain"	
	AJ	THOMAS J. GONDA and RICHARD J. D'ANDREA, <i>Blood</i> , 89(2):355-369, January 15, 1997. "Activating mutations in cytokine receptors: implications for receptor function and role in disease"	
	AK	KYLE I. HAPPEL, <i>et al.</i> , <i>J. Immunol.</i> , 170:4432-4436, 2003. "Cutting edge: roles of toll-like receptor 4 and IL-23 in IL-17 expression in response to <i>Klebsiella pneumoniae</i> infection"	
	AL	PETER C. HEINRICH, <i>et al.</i> , <i>Biochem. J.</i> , 334 (Pt 2):297-314, September 1, 1998. "Interleukin 6-type cytokine signalling through the gp130/Jak/STAT pathway"	
	AM	JEFFREY M. HERZ, <i>et al.</i> , <i>J. Recept. Signal Transduct. Res.</i> , 17(5):671-776, SepT. 1997. "Molecular approaches to receptors as targets for drug discovery"	
	AN	M. HIBI, <i>et al.</i> , <i>GenBank</i> , Accession No. M57230, January 6, 1995. "Definition: Human membrane glycoprotein gp130 mRNA, complete cds."	
	AO	CHRISTOPH HOLSCHER, <i>et al.</i> , <i>J. Immunol.</i> , 167:6957-6966, 2001. "A protective and agonistic function of IL-12p40 in mycobacterial infection"	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				Application Number	Not yet known
				Filing Date	Herewith
				First Named Inventor	Madaline CHIRICA
				Art Unit	Not yet known
				Examiner Name	Not yet known
Sheet	3	of	3	Attorney Docket Number	DX01074K1B

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T <sup>2</sup>
	AP	JAMES N. IHLE, <i>et al.</i> Stem Cells, 15 (Suppl 1):105-11, 1997. "Jaks and Stats in cytokine signaling"		
	AQ	DAVID E. LEVY, Cytokine Growth Factor Rev., 8(1):81-90, March 1997. "The house that JAK/STAT built"		
	AR	TAMARA KRAJINA, <i>et al.</i> , Eur. J. Immunol., 33:1073-1083, 2003. "Colonic lamina propria dendritic cells in mice with CD4 <sup>+</sup> T cell-induced colitis"		
	AS	S. LOK, <i>et al.</i> , Database EMBL Online!, Accession Number, AF178684, September 10, 1999. "Definition: Homo sapiens class I cytokine receptor (zcytor5) mRNA, complete cds"		
	AT	CHRISTI PARHAM, <i>et al.</i> , J. Immunol. 168:5699-5708, 2002. "A receptor for the heterodimeric cytokine IL-23 is composed of IL-12Rb1 and a novel cytokine receptor subunit, IL-23R"		
	AU	NEELA PATEL, <i>et al.</i> , J. Biol. Chem., 271(48):30386-30391, November 29, 1996. "Functional replacement of cytokine receptor extracellular domains by leucine zippers"		
	AV	DAVID H. PRESKY, <i>et al.</i> , Proc. Natl. Acad. Sci. USA, 93:14002-14007, November 1996. "A functional interleukin 12 receptor complex is composed of two b-type cytokine receptor subunits"		
	AW	D.H. PRESKY, <i>et al.</i> , GenBank, Accession No. U64198, November 28, 2000. "Definition: Human IL-12 receptor beta2 mRNA, complete cds."		
	AX	OLLI SILVENNOINEN, <i>et al.</i> , APMIS, 105(7):497-509, July 1997. "Cytokine receptor signal transduction through Jak tyrosine kinases and Stat transcription factors"		
	AY	HOLM H. UHLIG and FIONA POWRIE, J. Clin. Invest., 112(5):648-651, September 2003. "Dendritic cells and the intestinal bacterial flora: a role for localized mucosal immune responses."		
	AZ	M. T. WIEKOWSKI, <i>et al.</i> , J. Immunol., 166:7563-7570 (2001). "Ubiquitous transgenic expression of the IL-23 subunit p19 induces multiorgan inflammation, runting, infertility, and premature death"		
	BA	R.H. WATERSTON, Database EMBL Online!, Accession Number, AC26054, March 20, 2000. "Definition: Homo sapiens chromosome 1 clone RP11-131015, working draft sequence, 26 unordered pieces."		
	BB	LINDA A. WINSTON and TONY HUNTER, Current Biology, 6(6):668-671, June 1, 1996. "Intracellular signalling: Putting JAKs on the kinase MAP"		

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered.

Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.